STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

VERIFIED PETITION OF INDIANA MICHIGAN POWER COMPANY (I&M) FOR APPROVAL OF RENEWABLE ENERGY PURCHASE AGREEMENTS WITH THE HOOSIER LINE SOLAR PROJECT AND THE MEADOW LAKE IV WIND PROJECT (CLEAN ENERGY PPA PROJECTS) AS CLEAN ENERGY PROJECTS AND ASSOCIATED ACCOUNTING AND RATEMAKING, INCLUDING TIMELY COST RECOVERY, UNDER IND. CODE § 8-1-8.8-11.	)	**CAUSE NO.** 46088

SUBMISSION OF DIRECT TESTIMONY OF BARTLEY TABERNER

Petitioner Indiana Michigan Power Company ("Petitioner" or "I&M"), by counsel, hereby submits the direct testimony and attachment of Bartley Taberner.

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing was served this 20th day of June, 2024, by email transmission, hand delivery or United States Mail, first class, postage prepaid to:

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I&M Exhibit: _____

INDIANA MICHIGAN POWER COMPANY

PRE-FILED VERIFIED DIRECT TESTIMONY

OF

BARTLEY TABERNER

Contents

DIRECT TESTIMONY OF BARTLEY TABERNER
ON BEHALF OF
INDIANA MICHIGAN POWER COMPANY

I. Introduction of Witness

Q1. Please state your name and business address.

My name is Bartley Taberner. My business address is 1 Riverside Plaza, Columbus, Ohio 43215.

Q2. By whom are you employed and in what capacity?

I am employed by the American Electric Power Service Corporation (AEPSC) as a Transmission Planning Manager for East Transmission Planning in AEPSC's Grid Solutions group, (Grid Solutions). AEP is the parent company of Indiana Michigan Power Company (I&M or Company). AEPSC provides engineering, financing, accounting, regulatory, and similar planning and advisory services to AEP's regulated electric operating companies, including I&M.

Q3. Briefly describe your educational background and professional experience.

I received a Bachelor of Science – Electrical Engineering degree from West Virginia University in Morgantown, WV. I joined AEP in 1987 as a Distribution Engineer in the Huntington, WV division of Appalachian Power Company. In 1992 I joined the Marketing and Customer Services organization and spent over nine years as a Power Engineer and Key Account Engineer. In 2001, I joined the East Transmission Planning Department and was promoted to Senior Engineer in 2006 and Supervisor in 2008. In 2010, I was promoted to the position of Manager, Transmission Business Development with responsibilities for the Potomac Appalachian Transmission Highline (PATH) project. I returned to Transmission Planning in 2011 as Manager of Compliance, Modeling, and

Process Development. I moved to my current position as I&M Transmission Planning Manager in 2016. I am a licensed professional engineer in the state of Ohio.

Q4. Have you previously testified before any regulatory commissions?

Yes. I provided testimony on behalf of I&M in its Lake Trout, Mayapple, Sculpin, and Elkhart County Projects in Cause No. 45868.

Q5. What are your responsibilities as a Transmission Planning Manager?

My responsibilities include transmission planning activities in Indiana and Michigan for I&M and AEP Indiana Michigan Transmission Company (IMTCO). I&M and IMTCO are in the AEP Zone of PJM LLC (PJM) Regional Transmission Organization (RTO)[1]. For ease of reference, these subsidiaries will collectively be referred to as I&M in this testimony.

II. Purpose of Testimony

Q6. What is the purpose of your testimony?

The purpose of my testimony is to support the Company's request for approval of the purchase power agreements (PPAs), for the Meadow Lake IV Wind Project (Meadow Lake Project) and Hoosier Line Solar Project (Hoosier Line Project). The Meadow Lake Project and Hoosier Line Project are collectively referred to as the Clean Energy Projects. I present, with input from Company witnesses David Lucas, Mark Becker, and Timothy Gaul, the Company's response to the Indiana Utility Regulatory Commission's (IURC or Commission)

[1] IMTCO also has an investment in a switchyard in Greentown IN that is in the Midcontinent Independent System Operator RTO.

General Administrative Order (GAO) 2022-01, which became effective August 1, 2022. I also explain the transmission interconnection to the PJM RTO and cost estimates for the Clean Energy Projects.

Q7. Where are the PJM Interconnection System Impact Study Reports for the Clean Energy Projects accessible?

The links to the PJM Generation Interconnection System Impact Study Reports, by project, are listed in Table BT-1:

Table BT-1: List of Projects

Project Name	PJM Queue Number	Generation Interconnection System Impact Study Reports
Hoosier Line Project	AF1-207	https://www.pjm.com/pub/planning/project-queues/impact_studies/af1207_imp.pdf
Meadow Lake Project	T-127	https://www.pjm.com/pub/planning/project-queues/impact_studies/t127_imp.pdf

Q8. Are you sponsoring any Attachments?

Yes. As previously noted, I, along with Company witnesses Becker, Lucas, and Gaul, co-sponsor one attachment that demonstrates compliance with the requirements specified in Appendix A to the GAO 2022-01 for the Projects' approval requested in this application:

Attachment	GAO 2022-01 Requirement	Project Names
Attachment BT-1	Support for PPA projects submitted pursuant to Ind. Code ch. 8-1-8.8.	Clean Energy Projects

Q9. Were the attachments that you co-sponsor prepared by you or under your direction or supervision?

Yes.

III. GAO 2022-01

Q10. Are you familiar with GAO 2022-01?

Yes. The GAO provides guidelines for additional evidence to be provided in connection with petitions regarding electric generation under Ind. Code ch. 8-1-8.8 that request approval of a multi-year PPA for electric generation.

Q11. Please provide the information requested by GAO 2022-01 as it applies to the Clean Energy Projects.

The required information as it pertains to these PPA applications is provided in Attachment BT-1 to this testimony.

IV. Hoosier Line Project and Meadow Lake Project PJM Interconnections

Q12. What do you discuss in this section of your testimony?

I will discuss the Clean Energy Projects specific interconnection approval details and status. Company witness Burkholder discusses recent changes to the PJM interconnection process, which impacted the resource selection process discussed by Company witness Dehan and witness Koujak.

Q13. What RTO will these projects be connected to?

The Hoosier Line Project will be connected to PJM. The Meadow Lake Project is an existing resource and is already connected to PJM.

Q14. Please describe the PJM interconnection approval process for the Clean Energy Projects.

The PJM RTO has the responsibility for planning the expansion and enhancement of the PJM Transmission system on a regional basis. As such, PJM defines the interconnection process. New generation interconnections that are designated in whole or part as a Capacity Resource or Energy Resource must enter the PJM New Services Queue.

The developers of these projects initiated the connection of proposed generation facilities to the transmission system by submitting a New Service Request to PJM. They were assigned to the relevant New Service Queue and queue numbers.

PJM prepared initial Feasibility Studies to assess the practicality and cost of integrating the generation into the PJM system. PJM then, based on an executed agreement with the customer (developer), prepared System Impact Studies to analyze the connection and determine any ramifications or issues that would need to be addressed if the project were to be constructed.

Q15. What is the request status of the Clean Energy Projects?

The Meadow Lake Project has an existing interconnection agreement and has submitted a request to PJM to verify that the repower of the project is consistent with the existing interconnection agreement. This process should conclude by mid-2025.

Feasibility and Generation Interconnection System Impact Study Reports have been completed and links to the latter are on the PJM website and are provided in Table BT-1. A Facilities Study is currently in progress for the Hoosier Line Project focusing primarily on the design and cost of facilities necessary to physically connect the generation to the transmission system. The Facilities

Studies report for the Hoosier Line Project will be issued by PJM upon completion of the respective studies.

Construction of the interconnection point is managed by the transmission owner, in this case AEPSC on behalf of I&M.

Q16. Did I&M participate in this process?

Yes, as the transmission owner. While PJM is responsible for the required analysis, they consult with the transmission owner during the process. In addition, while PJM identified the improvements necessary for a successful generation interconnection, the required facilities will, as described above, be designed with I&M's input, and must meet I&M's technical specifications.

Q17. Has the estimate of the required interconnection cost for Hoosier Line Clean Energy Projects been developed?

Yes. The Generation Interconnection System Impact Study Reports (at the links shown in Table BT-1 above) include a cost estimate for Hoosier Line. As noted therein[2], these studies are subject to revisions due to subsequent engineering studies and on-site reviews to determine final construction requirements. Finally, stability analysis performed during the development of each project's Facilities Study may identify additional upgrades not considered in the System Impact Study Report. These costs are taken into consideration in the Hoosier Line PPA sponsored by Company witness Gaul.

[2] See the "Cost Summary" Section in the Generation Interconnection System Impact Study Reports.

V. Conclusion

Q18. Please summarize your conclusions and recommendations.

As I have explained above, Meadow Lake has completed, and Hoosier Line is progressing through the PJM interconnection process. PJM is responsible for this process and as the RTO, will make the final decisions regarding interconnection. The Company has also provided the information required by GAO-2022-01.

Q19. Does this conclude your pre-filed verified direct testimony?

Yes

VERIFICATION

I, Bartley Taberner, Transmission Planning Manager at American Electric Power Service Corporation, affirm under penalties of perjury that the foregoing representations are true and correct to the best of my knowledge, information, and belief.

Date: 6/12/24

Bartley C. Taberner

Bartley Taberner

GAO 2022-01 Information for Purchase Power Agreement Projects

GAO 2022-01 Guideline	Sponsoring Witness(es)	Hoosier Line AF1-207	Meadow Lake Wind T-127
The name of the RTO to which the generation will be connected.	Taberner	The project will be connected to a new 345kV switching station on AEP's Olive – Reynolds (NIPSCO) 345kV circuit in PJM.	The project is connected to the Meadow Lake 345kV switching station on Dequine – Olive 345kV circuit in PJM.
A description of the new generation's anticipated impact on the submitting utility's resource adequacy and reliability.	Lucas	These specific projects are intended to meet the goals stipulated in the 21st Century Development Task Force Report. It is expected to contribute to meeting resource adequacy requirements and contribute to the overall reliability of I&M's system. Please see the direct testimony of David A. Lucas at Q16 and Sections VII and VIII for a description of how these projects will satisfy: 1) the Five Pillars defined in the Final Report issued by the 21st Century Energy Policy Development Task Force (codified in Ind. Code 8-1-2-0.6): reliability, resilience, stability, affordability, and environmental sustainability; and, 2) how the projects will help fulfill the capacity and energy needs identified in I&M's 2021 IRP.	
An explanation regarding whether the generation is required to be in the RTO's interconnection queue and, if so, its status in the queue.	Taberner	PJM requires new interconnections to go through a review process. Please see the direct testimony of Bartley Taberner at Q12 – Q17 for a description of PJM interconnection process. Generation Interconnection System Impact Studies for these two projects can be found at Q7. The status of the two projects are as follows: 1) The System Impact Study for the Hoosier Line Project is complete and the report was issued in June 2023. The Hoosier Line Project is currently in the Facility Studies stage. 2) Meadow Lake Project has completed the interconnection process and is already in service. The status of these two projects is also detailed in witness Taberner's direct testimony at Q15.	
A description of the generation's expected capacity factors, dispatchability, and accreditation characteristics.	Gaul	The project will provide 180 MW of nameplate capacity (ICAP), at an expected capacity factor of 23.05% via the AF1-207 interconnection. Calculation of an accredited unforced capacity (UCAP) for the facility is the product of the effective nameplate capacity, the applicable Effective Load Carrying Capability (ELCC) class rating, and the ELCC performance adjustment.	The project will provide 100 MW of nameplate capacity (ICAP), at an expected capacity factor of 36.90% via the T-127 interconnection. The anticipated accredited UCAP for the facility is approximately 20 MW. However, the facility has a queue position (AI2-096) to uprate its capacity injection rights and I&M will

GAO 2022-01 Guideline	**Sponsoring Witness(es)**	**Hoosier Line AF1-207**	**Meadow Lake Wind T-127**
		The ELCC rating and performance vary by year. However, in its first year it is anticipated that the Hoosier Line project is expected to have an ELCC value of 14%, providing approximately 25 MW of accredited capacity for that year. The project will be a variable resource.	be entitled to any future additional accredited capacity calculated from the applicable Effective Load Carrying Capability (ELCC) class rating, and the ELCC performance adjustment. The ELCC rating and performance vary by year. The project will be a variable resource.
A description of how the generation is expected to perform at the relevant RTO's peak pursuant to its capacity construct.	Becker	As noted above, this project is expected to provide approximately 25 MW of UCAP accredited capacity identified in the preferred portfolio identified in I&M's 2021 IRP filing.	As noted above, this project is expected to provide approximately 20 MW of UCAP accredited capacity identified in the preferred portfolio identified in I&M's 2021 IRP filing.